Amendments to the Drawings.

1. The attached replacement sheets of drawings include renumbered Figures 10-13 originally labeled Figures 13-16.

2. Please delete original Figures 10-34.

Attachment: Replacement Sheets

REMARKS

Election/Restrictions

1. Restriction to one of the inventions was required under 35 U.S.C. 121 to one of the following inventions:

I. Claims 1-24 drawn to a putter, classified in class 473, subclass 340.

II. Claims 25-26, drawn to a method of stroking, classified in class 473, subclass 409.

III. Claims 27-29, drawn to a method of fitting a putter to a golfer, classified in class 473, subclass 409.

If group I claims were elected, Applicant was required to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

The provisional election, which was made without traverse, to prosecute the invention of a putter of Figure 1, Claims 1-3, 5-7, 11, 12, 14, 16-18, 20 and 21 during the telephone conversation between Examiner and Mr. Ian C. McLeod on 27 September 2003 is affirmed. The invention of

Group I, drawn to a putter, is elected. The head type of Species 1 in Figure 1 is elected for prosecution on the merits. Claims 1-3, 5-7, 11, 12, 14, 16-18, 20 and 21 read on the elected species. Claims 4, 8-10, 13, 15, 19 and 22-29 are cancelled. In the Amendment to the Specification the drawings and text related to a number of non-elected species in Figures 10-34 have been cancelled. Applicant will consider filing separate applications as to these species which are quite different from the elected species.

Information Disclosure Statement

2. The Information Disclosure Statement filed 26 September 2003 was placed in the application file, but information referred to therein was not considered for failure to include the date of all patents, publications, or other information submitted for consideration by the Office.

The Information Disclosure Statement filed 26 September 2003 has been amended to include the date of all patents and is enclosed as an attachment.

Claim Rejections

Claims 1-31 are pending in the application. Claims 4, 8-10, 13, 15, 19 and 22-29 are cancelled. Claims 1-3, 5-7, 11, 12, 14, 16-18, 20 and 21 have been rejected. Newly added Claims 30 and 31 depend upon Claims 1 and 7 respectively.

Claim 1 has been amended to call for a single weight which is mounted on the bottom side of the blade to increase an impact of the striking face of the blade with the ball and shift the center of mass of the putter head down and back from the striking face of the blade. The single weight is mounted on the bottom side and away from the opposed ends of the blade so as to be adjacent to and on opposite parts of a center of the first linear edge of the blade. The single weight mounted in such a way adds beneficial heel-toe weighting described in paragraph 0005, and also provides a means to dispose more mass beneath the elongate blade for lowering the center of mass. Claim 7 is amended to have a single runner on the bottom side and away from the opposed ends of the blade having a weight which increases an impact of the striking face of the blade with the ball and shifts the center of mass of the

putter head down and back from the striking face of the blade. Newly added dependent Claims 30 and 31 have a weight or runner, respectively, comprising hollow right cylindrical segments as described in paragraphs 0090 and 0094. Dependent Claim 31 provides the runner as a hollow right cylinder segment, as illustrated in Figure 3. The center of mass of a runner having this shape is low, since the mass is disposed away from the blade and close to the ground. Support for a runner having a weight and the weight shifting the center of mass is found in paragraph 0098 at the top of page 27 in the specification. The goal of adding weight and shifting the center of mass can be accomplished by the material of which weight or runner is constructed and attaching the weight or runner to the bottom side of the blade (Page 27, lines 2-6 of the specification). The added weight shifts the center of mass down and back from the striking face of the blade when placed under the blade.

Claim Rejections - 35 U.S.C. §103

3. Claims 1-3, 5-7, 11, 12, 14, 16-18, 20 and 21 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Japanese Patent Publication No. 8-150233 to Hotta *et al.*, in view of U.S. Patent No. 4,529,202 to Jacobson. Enclosed is a complete English translation of this reference.

Japanese Patent Publication No. 8-150233 to Hotta *et al.* teaches a golf putter having a thin-plate head portion 2 with a plate thickness of 1 mm to 10 mm. The thin-plate head portion 2 can have protrusion 3 constructed of a very light-weight material (Hotta *et al.*: paragraph 0042) on the bottom surface or top and bottom surfaces of the thin-plate head portion. Since the protrusion is a very light-weight material, the head weight of the golf putter is not dispersed vertically and is concentrated horizontally at the impact point height (Hotta *et al.*: paragraph 0022 and 0037 titled "Operation"). Additionally, the center of mass lies in the plane of the thin-plate head portion, since the impact point and center of gravity exist on one horizontal line in the ball impact target direction. (Hotta *et al.*:

paragraph 0016 and 0041).

U.S. Patent No. 4,529,202 to Jacobson discloses a golf club head 13 suitable for use on putting surfaces having a generally planar blade member 21 with disc-like members 23, 25 providing a predetermined weight to the golf club head. The golf club head 13 can be manufactured from a series of individual elements or formed of a single piece by metal casting techniques. The golf club head configuration tends to place the mass centers of the blade member and the golf ball along a common vector "v" when contact in made. The disc-like members 23, 25 insure that the golf club striking surface is aligned with the mid-point of the golf ball, since the diameter "D" of the disc-like members 23, 25 is substantially equal to the diameter of the golf ball. In Figure 2, the ½ disc like segments 123, 125 are at the ends of the blade 121 and not the bottom of the blade away from the opposed ends of the blade as set forth in Claims 1 and 7.

Claims 1 and 7 have been amended such that the putter head includes a weight which increases the impact of the striking face of the blade with the ball and shifts the center of mass down and back from the striking face of

the blade. When the weight is a hollow right cylindrical segment runner 18, as is shown in cross-section as in Figure 6, the runner 18 has a center of mass located centrally and downward from the blade 16. When the runner 18 is attached to the bottom side 16F of putter head 15 as shown in Figure 2 it shifts the center of mass of the putter head 15 down and back from the front edge 16A which is the striking face of the putter head. In paragraph 0098 at the top of page 27, applicant teaches that the center of mass can be shifted by changing the shape and weight of the runner.

Neither Hotta *et al.* or Jacobson, taken alone or in combination show or suggest all of the claim limitations. In addition, Hotta *et al.* and Jacobson, taken alone or in combination do not suggest or motivate one skilled in the art to combine a golf putter with a weight to shift the center of mass with a weight which increases the impact of the striking face of the blade with the ball and shifts the center of mass of the putter head away from the striking face and down the striking face of the blade. Hotta *et al.* teaches to use very light-weight runners. For example, Hotta *et al.* disclose

a projection 3 on the bottom surface of the thin-plate head portion 2 formed of the very light-weight material (Hotta *et al.*: paragraph 0042 in the specification).

According to Hotta *et al.*, the protrusion 3 enables the head portion 2 to move smoothly on the turf and serves to adjust the height such that the front edge 1 is located at a certain height. Hotta *et al.* use a protrusion formed of the very light-weight material to keep the center of gravity and the front edge 1 impact point on a horizontal line in the ball impact direction (Hotta *et al.*: paragraph 0041 in the specification). This places the center of mass in the plane of the thin-plate head portion. The putter head disclosed by Hotta *et al.* is lightweight (Hotta *et al.*: paragraph 0016 in the specification) which Hotta *et al.* suggests will efficiently transfer the energy of the golf putter head. This requires striking the ball precisely such that the center of gravity and the front edge impact point are on a horizontal line in the ball impact direction. However, a golfer may not always strike the ball in the ideal manner. While the runner taught by Hotta *et al.* is lightweight, the weight on the putter head claimed by applicant is

enough to shift the center of mass down and back from the striking face of the blade. Hotta *et al.* do not teach a putter head wherein the center of mass is anywhere but the center of the blade of the putter head and Hotta *et al.* teaches that the weight of the putter head should *not* be dispersed vertically, but rather concentrated horizontally at the impact point height. This teaches away from the putter head disclosed by applicant. The applicant teaches added weight to shift the center of mass to stabilize the putter for better roll. The weight of the putter head taught by applicant does not concentrate the weight behind the impact point and the weight is dispersed vertically.

In the golf club head disclosed by Jacobson, the diameter "D" of the disc-like members 23, 25 is substantially equal to the diameter of the golf ball, so the disc-like members 23, 25 insure that the golf club striking surface is aligned with the mid-point of the golf ball. According to Jacobson, the "golf club head configuration tends to place the mass centers of the blade member and the golf ball, along a common vector "V" when contact therebetweeen is made during play" (Jacobson: col. 3, lines 66 through col. 4, line 1). This common vector

"V" is shown in Figures 3 and 4 at the vertical center of the blade member 21. Jacobson does not teach adjustment of the center of mass with a single weight or runner as is described by applicant in paragraph 0098 of the specification.

More space is available beneath the blade for placement of a single weight or runner having a substantial mass than is possible with disc segments vertically disposed at opposite ends of the blade and substantially perpendicular thereto (Jacobson: col. 2, lines 48-51; col. 3, lines 32-36). As seen in Figure 3, a single weight or runner beneath the blade, such as a hollow right cylinder segment runner 18, provides a center of mass disposed down from the bottom side of the blade such that the center of mass of the putter is shifted downward. Figure 2 of applicant's disclosure illustrates that most of the mass of the runner 18 is disposed *horizontally* along the length of the putter head 15, such that more mass can be placed beneath the blade 16 than can be provided by discs 123, 125 at opposed ends of a blade member 121 which are *vertically* disposed as illustrated in Figure 2 of Jacobson. Jacobson teaches that the discs 23,

25 on the blade member 21 should have a minimal thickness "T" such that the bearing surface 37 of the disc is of minimal width. Preferably it should be about only ¼ inch to minimize drag (Jacobson: col. 2, lines 61-66). This teaches away from the horizontally disposed weight or runner taught by applicant.

Neither Hotta *et al.*, or Jacobson either taken alone or in combination show or suggest shifting the center of mass with a single weight or runner mounted along the bottom side of the blade to increase an impact of the striking face of the blade with the ball and shift the center of mass of the putter head down and back from the striking face of the blade. The references do not show or suggest this element of the present invention. The references teach that it is preferred to have the center of mass of the blade and the golf ball along a common line of contact. In light of the above amendment and argument, the currently claimed putters are patentable over Hotta *et al.* and Jacobson, either taken alone or in combination. Reconsideration of the rejection is requested.

Therefore, in light of the above, it is now believed that Claims 1-3, 5-7, 11, 12, 14, 16-18, 20, 21, 30 and 31 are patentable and in condition suitable for allowance. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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Enclosure: Information Disclosure Statement
Translation of Japanese reference
Replacement Sheets